



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,968	02/19/2004	Sezai Sablak	BSS0005	4459
27268 7590 05/04/2007 BAKER & DANIELS LLP 300 NORTH MERIDIAN STREET SUITE 2700 INDIANAPOLIS, IN 46204			EXAMINER AGGARWAL, YOGESH K	
			ART UNIT 2622	PAPER NUMBER
			MAIL DATE 05/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,968	Applicant(s) SABLAKE, SEZAI	
	Examiner Yogesh K. Aggarwal	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-23, 25 is/are rejected.
- 7) ☒ Claim(s) 10 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: ____. |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date
:02/24/2006,09/14/2005,06/06/2005,02/10/2005,05/26/2004.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8, 11-22 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by von Flotow et al. (US PG-PUB # 20040183917).

[Claim 1]

von Flotow et al. teaches a video image stabilization system comprising:

a camera (figures 4b and 5 disclose a camera) including an image capturing device configured to capture a video image, said camera having a selectively adjustable field of view (Paragraph 33 teaches camera being controlled by an inertial stabilization system that controls the orientation of the camera); and

at least one processing device (figure 4b disclose an image processor) operably coupled to said system wherein said processing device receives signals indicative of the field of view of said camera and images captured by said camera, said processing device sequentially grabbing a first one of said images and a second one of said images, said processing device determining a stabilizing adjustment for the video image as a function of an intended change in the field of view of said camera during an interval between the capture of said first image and said second image based upon said signals indicative of the field of view and an analysis of said first and second images (Paragraphs 33-37, 49 figures 5 and 6).

Art Unit: 2622

[Claim 2]

von Flotow teaches wherein a display portion (figure 6 discloses two frames displayed on the monitor) of each image captured by said camera is selected for display, said selected display portion of each image comprising less than the entire captured image and wherein said stabilizing adjustment determined by said processing device comprises adjusting a relative location of said selected display portion within said captured image (Paragraph 35).

[Claim 3]

van Flotow teaches wherein said camera has a selectively adjustable pan position, a selectively adjustable tilt position and a selectively adjustable focal length (Paragraph 33 teaches camera being controlled by an inertial stabilization system that controls the C1, C2 and C3 orientation of the camera corresponding to line of sight i.e. zoom, tilt and scan (pan) of the camera).

[Claim 4]

van Flotow teaches the camera is panning a scene due to a result of the desired movement (Paragraph 36).

[Claim 6]

van Flotow teaches wherein said analysis of said first and second images includes transforming one of said first and second images wherein the scale of the one image is adjusted (Paragraph 35, figure 6, the coordinates of the car are changed from one frame to another).

[Claim 7]

van Flotow teaches wherein said analysis of said first and second images includes aligning one of said first and second images with the other of said first and second images based upon said signals indicative of the field of view and determining if said aligned images indicate the

Art Unit: 2622

occurrence of unintentional camera movement (Paragraphs 35 and 36, the car is placed at the same position in two frames by aligning two frames).

[Claim 8]

van Flotow teaches wherein determining if said aligned images indicate the occurrence of unintentional camera movement comprises determining an image difference of said aligned images (Paragraph 36).

[Claim 11]

van Flotow teaches wherein said signals indicative of the field of view comprise pan, tilt and focal length settings of said camera for each captured image, said signals being communicated to said processing device (figure 4b disclose an image processor) from said camera (figures 4b and 5 disclose a camera) on an image-synchronized basis (Paragraph 33 teaches camera being controlled by an inertial stabilization system that controls the C1, C2 and C3 orientation of the camera corresponding to line of sight i.e. zoom, tilt and scan (pan) of the camera).

[Claim 12]

van Flotow teaches wherein the camera is mounted on a stationary support (Paragraph 59).

[Claim 13]

van Flotow teaches a video image stabilization system comprising:

a video camera (figure 4b and 5 disclose a camera) including an image-capturing device (an image capturing device is inherently present in a camera) configured to capture images, each captured image associated with a field of view, said camera having at least one selectively adjustable parameter wherein adjustment of said at least one camera parameter varies the field of

Art Unit: 2622

view of said camera (Paragraph 33 teaches camera being controlled by an inertial stabilization system that controls the orientation of the camera);

a display device (figure 6 discloses two frames displayed on the monitor) configured to display a selected portion of images captured by said camera (Paragraph 35); and

a processing device operably coupled to said camera and to said display device wherein said processing device receives signals indicative of said at least one camera parameter and images captured by said camera, said processing device being operable to compensate for inadvertent movement of said video camera by adjusting the selected portion of the images displayed by said display device based upon the signals indicative of said at least one camera parameter and an analysis of a current captured image and a previously captured image (Paragraphs 34-37).

[Claim 14]

van Flotow teaches wherein the selected portion of the video image comprises a signal indicative of pan, zoom and tilt settings (Paragraph 33 teaches camera being controlled by an inertial stabilization system that controls the C1, C2 and C3 orientation of the camera corresponding to line of sight i.e. zoom, tilt and scan (pan) of the camera).

[Claim 15]

van Flotow teaches wherein the selected portion of the video image comprises a central portion of the video image (Paragraph 35, figure 6).

[Claim 16]

van Flotow teaches wherein the selected portion of the video image includes approximately 90 percent of the video image (Paragraph 35).

Art Unit: 2622

[Claim 17]

This is a method claim corresponding to apparatus claims 1, 2 and 12. Therefore claim 17 is analyzed and rejected based upon apparatus claims 1, 2 and 12.

[Claims 18-22]

These are method claims corresponding to apparatus claims 4-8 respectively. Therefore these claims have been analyzed and rejected based upon apparatus claims 4-8 respectively.

[Claim 25]

This is a method claim corresponding to apparatus claims 1 and 2. Therefore claim 25 is analyzed and rejected based upon apparatus claims 1 and 2.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over von Flotow et al. (US PG-PUB # 20040183917) in view of Jones (US Patent # 6,809,758).

[Claim 9]

van Flotow teaches generating image difference of the aligned images but fails to teach generating a histogram and determining whether unintentional camera movement has occurred based upon identifying a maximum peak in said histogram and a location of said maximum peak. However Jones teaches generating histogram and whether unintentional camera movement has

Art Unit: 2622

occurred based upon identifying a maximum peak in said histogram and a location of said maximum peak (col. 5 line 57-col. 7 line 34, figures 1-4).

Therefore taking the combined teachings of van Flotow and Jones, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have determined unintentional camera movement based upon identifying a maximum peak in said histogram and a location of said maximum peak in order to remove unwanted motion from a image without removing desired motion without excessive computational requirements in a fully automatic process (col. 2 lines 12-17).

[Claim 23]

This is a method claim corresponding to apparatus claim 9. Therefore claim 23 is analyzed and rejected based upon apparatus claim 9.

Allowable Subject Matter

5. Claims 10 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

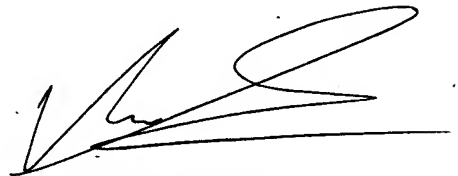
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571)-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YKA
April 29, 2007



VIVEK SRIVASTAVA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600